funkwerk
enterprise communications

elmeg ICT

Operating instructions
English

elmeg
by funkwerk

These operating instructions can be a helpful guide to assist you in using your new ISDN telecommunications equipment (PABX system).

No matter whether your elmeg PABX is for your work or for your personal use, ease of use and enjoyment while using the phone are guaranteed.

Please take a little time to try out the functions that are packed into this ISDN PABX so that you can learn to take advantage of the full range of features provided.

Declaration of conformity and CE mark

CE

This device meets the requirements of the following EC directive R&TTE 6/3/EG:

»Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity«.

You can also request this EC declaration of conformity at the following Internet URL: http://www.funkwerk-ec.com.

The waste container symbol with the “X” through it on the device indicates that the device must be disposed of separately from normal domestic waste at an appropriate waste disposal facility at the end of its useful service life..

© 2009 Funkwerk Enterprise Communications GmbH - All rights reserved.

Reprinting of this document, even excerpts, is permitted only with the express consent of the publisher and with precise source information, regardless of the media used (mechanical or electronic).

Function descriptions included in this documentation which refer to software products of other manufacturers are based on the software used and valid at the date the documentation was prepared or published. The product and company names used in this documentation may be protected by trademarks.

Table of contents

Description 1

Safety notes 1
Loss of power 3

Symbols 3
Symbols used 3

Operation 4
Making phone calls 4
Making outside calls 4
Specific trunk bundle selection 5
Making internal calls 5
Accepting calls 5
Accepting calls (Pick-up) 5
Defining your own number for the next call 6
Switching call authorization for the next call 7
Trunk group reservation 7
Speed dialing from the telephone directory 7
Voice announcement 7
Switching a voice announcement for all numbers (day / night) 8
Announcement 8
Room monitoring 8
Malicious call identification (Tracing) 9
Allocating Project Numbers 9
(keypad-function »Net fixed«) 10
Sending a fax from a multi-function terminal 10
Direct dial-in 10
Inquiry call 10
Call waiting 11
Transferring calls with and without advance notice 12
(Explicit call transfer) 13
Broker's call 13
Three-party conference 13
Call forwarding 14
Silent signalling 14
Call modes (Day- / Night) 15
Teams 15
Activating the switching function for an internal subscriber 16
Follow me 16

Block dialing (Austria) . . . 17

Hotel functions . . . 18

Wake-up call . . . 18
MWI Activate/ deactivate . . . 18

Door intercom device . . . 19
Signaling features . . . 19
Switching contacts . . . 20
Dial authorization with PIN . . . 21

Modified code numbers . . . 21

Communication / Call charges . . . 22

Terminating an Internet connection from the phone . . . 22

System menu for the PABX . . . 22

System telephones . . . 23
Intercom . . . 23

Service . . . 24
Configuration of system features using a telephone . . . 24
Service access . . . 24
RAS dial-in for gateway diagnostics . . . 25

Index . . . 26

Configuration using a telephone (administrators) . . . 30

Description

The PABX is an ISDN telecommunications system (PABX) for interfacing with the Euro ISDN (DSSI) protocol. The PABX is provided with external ISDN connections, which are configured for interfacing to the ISDN connections of the network service provider. Depending on the type of PABX, ISDN connections can be set as required as internal or as external ISDN connections. You can program the type of connection for the external ISDN connection either as a multipoint connection (MSN), or as a point-to-point connection (DDI). Depending on the type of PABX, up to eight analog terminals can be connected (base model). Module slots for the ISDN UP0 and a/b ports and for the POTS module for analog, external ports and the VoIP Gateway for IP telephones are also provided, as is an «Expansion for the elmeg ICT880» and an «Expansion for the elmeg ICT880-rack». Such an extension has its own ISDN and analog connections. Further modules can be mounted. Internal numbers (the destination for the extension number with point-to-point connection) between 0. . . 9999 can be freely assigned. The features provided for analog terminals can only be used with terminals which use tone dialing and which are equipped with a flash button. Flash duration detection can be set by PC configuration.

Analog terminal devices that use pulse dialing can not be used for functions or codes. Please note that the buttons on some ISDN terminals available on the market may limit the use of the features provided by the PABX system.
All terminal devices connected to the system must be »TC Terminals Guideline« or »R&TTE Guideline« approved.

Attention:
These operating instructions describe only the most important routines for installing and using the PABX. A description of the performance features is given under Help in the »Professional Configurator«, or in the description of features on your CD.

Attention:
The first time you start the Configurator you will be asked to enter your user ID and password. Use »Service« as your user ID and also »Service« as the password. Please note that these words are case-sensitive! Once you've been logged on to the Configurator you can change your user ID and password as you like.

Safety notes

Danger!! This sign is affixed to power supply cable. Unplug the mains plug before removing the enclosure.

- Mind the storage and operation temperatures for the device listed in the technical specifications. Only connect the device when the permissible ambient operating temperature has been reached.
- Please note that condensation on or in the unit must be prevented when moving from cold to warm surroundings. Only remove the unit from the package when the permissible ambient operating temperature has been reached.
- You should not make calls or connect or disconnect any lines during thunderstorms.
- Only attach the connecting cords at the connections provided.
- Make sure phone cables are installed in a safe manner to prevent tripping.
- Avoid the following:
  Direct sunlight
  Sources of heat (for example radiators)
  Electronic devices (for example stereo components, office equipment or microwave devices
  Ingress of moisture or liquids
  Aggressive fluids or vapors
  Dusty environment

- Do not use the unit in excessively humid rooms or hazardous locations.
- Only open those sections of the device specified in the assembly / operating instructions.
- Do not touch plug connectors with pointed, metal, or moist objects.
- If you do not permanently mount the device or any accessories, be sure to place it/them on a non-slip surface.
- When required, clean the unit with a slightly moistened cloth.
- Only use approved accessories.
- Only terminals with SELV and/or which comply with ETS 300047 may be connected to the unit. This regulation is fulfilled when approved terminal devices are used as intended.

Mains connection (230VAC)

- Ensure that the electrical installation (grounding outlet) for the unit (and for additional devices where required) is installed by a qualified electrician to prevent personal and material risks!
- Connect any operational grounding provided for your device before connecting the device to the mains power supply.
- Unplug the connector before removing the cover and working on the cable terminal bay. Replace the cover before reconnecting the mains connector.
- As your PABX system is equipped with a functional grounding connection, a »ground« (waterpipe, heating system pipe or an earth bonding conductor for the house wiring system) should be located near the installation location of the system. This connection is required for use of overload protection modules (FSM). The connection to the PABX must be made with a connecting lead of at least 2.5 mm^2.
- If you use terminal devices that are linked with the PABX system via USB or RS232, you must install the functional grounding, as otherwise »hum loops« may be produced.
- Where at all possible, provide a separate power circuit for the 230 V AC connection of your PABX system. This protects your PABX from short-circuits that may occur in other in-house equipment.
- We recommend installing an overload protection to protect your PABX against surge that can sometimes occur during thunderstorms. For further information please contact your local electrician.

Plug-in power supply

- Use only approved power plug-in units.
- Do not use power plug-in units with visible defects or damage (fissures, cracks, etc.)

Battery-operated devices

- Use only approved battery packs.
- Use the battery pack only as intended. Never use a damaged or exhausted battery pack.
- Do not allow contact between the charging and battery contacts and conducting objects such as keys, paperclips, rings, or bracelets.

- Dispose of the exhausted battery pack according to local rules and regulations. Recycle! Do not expose battery cells to open fire.

Radio devices (e.g. DECT, Bluetooth)

- It is possible in some cases that medical devices are affected by powered-up radio devices. Please comply with local rules and regulations concerning DECT devices.
- Do not operate radio devices in vehicles or hazardous locations.

Loss of power

On loss of power (230 V AC power supply) the PABX is not operational, meaning that you can make neither internal nor external calls. An ISDN terminal with emergency power capabilities can be operated via the additional emergency service module (NSP module).

On return of power, functions which have been configured by the user, e. g. internal and external connections, are not active. The features configured using setup programming are unaffected by a loss of power.

Symbols

Please note that:Different terminal devices may not signal the same tones or have the same ringing signals or operating procedures.
For further information on clock frequency and length, please refer to the decription of functions on the CD.

Symbols used

	Lift up the handset of your telephone.
	This symbol indicates the call status. You have lifted the handset of your telephone.
	Replace the handset of your phone in the carriage, or the telephone is idle.
	Indicates signaling at a terminal device, e.g. your phone rings.
	You can dial the desired number.
1 ... 0 * #	One of these symbols indicates that you should dial the digit shown, or a certain character.
0 ... 9 *	These symbols indicate a selection of digits or characters from which you can choose the appropriate one.
	This symbol prompts you to select a certain digit or character from a list or table.
R	Prompts you to press the flash key (signal key).
	Indicates that an acknowledgement signal can be heard in the handset.
	Indicates a conference call.
#	When you enter the number for dialing via an SIP provider, dialing is not performed until around 5 seconds after the last digit has been entered. Dialing is performed immediately when you press the # key after entering the number. In this case, the terminal device must also be capable of dialing into the phone system with the #.

Operation

Not all of the features described here may be implemented in the standard ISDN connection supplied by your network service provider. Contact your service provider to determine which features come standard with your ISDN access and which ones you must apply for separately.

If your phone is set for »Automatic line access« you must first press the * key when you lift the handset before beginning any internal call procedures. The symbol is highlighted in color, as shown in the example below, for the corresponding performance feature.

Lift up handset	Making internal calls	Conduct your call

Making phone calls

Some terminal devices use their own special procedures for the functions described in the following. Refer to the operating instructions for the terminal device being used for detailed information.

Only telephone connections, i. e. calls between subscribers, are presented in the following usage procedures as examples. For analog telephones, these functions are only described for tone dialing terminal devices equipped with a flash key. The tones and signals described below are heard when using analog telephones. These tones may be different for ISDN telephones and analog telephones which generate their own dial tones. Other information may also be shown in the display of these telephones.

Attention:
Please note: ISDN terminal devices connected to the ISDN connection may not have the same signals, ringing cycles or operating procedures as the internal terminal devices for the PABX system.

Attention:
When you enter the number for dialing via an SIP provider, dialing is not performed until around 5 seconds after the last digit has been entered. Dialing is performed immediately when you press the # key after entering the number. In this case, the terminal device must also be capable of dialing into the phone system with the #.

Making outside calls

Making external calls without direct exchange line access

Lift up handset	Dial line access digit	Dial external number	Conduct your call	Terminate your call

Attention:
If you hear the busy signal after dialing the first 0 your telephone either does not have authorization for making external calls, or the external ISDN connection is busy.

Making outside calls with direct exchange line access

Lift up handset	Dial external number	Conduct your call	Terminate your call

Specific trunk bundle selection

Lift up handset	✱ 8	Select trunk group ISDN, POTS (0...8)	or	✱ 8 # Select trunk group ISDN, POTS, SIP-Prov. (00...08), (10...19)	Dial external number	Conversation

Making internal calls

All phone calls, fax transmissions or data transmissions that take place between internal analog and ISDN terminal devices are internal connections for which no charges are billed.

Making internal calls without »Direct exchange line access«

Lift up handset	Dial internal extension number	Conversation	Terminate your call

Making internal calls with »Direct exchange line access«

Lift up handset	✱	Dial internal extension number	Conversation	Terminate your call

Accepting calls

Telephone rings	Lift up handset	Conversation	Terminate your call

Accepting calls (Pick-up)

Picking up calls from within the group

Attention:
Picking up a call is possible only within the pick-up group to which your terminal device has been assigned via configuration.

A telephone near you begins ringing. You would like to accept the call at your own phone.

Lift up handset	✱ 0 Accept call	Conversation

Picking up calls from the answering machine

Lift up handset	✱ 0 / # 0 Take call / conversation from the answering machine	Conversation

Picking up calls for a specific subscriber

Picking up of calls for a specific subscriber applies to the entire pabx system and is not bound to groups.

Lift up handset	✱ 1 Dial this code	Select internal subscriber	#	You can conduct the call from your own telephone

Automatic completion of call to busy subscriber or on no answer

This function can only be used by telephones that permit suffix dialing. Automatic call completions from an inquiry call are not possible.

Attention:
External Completions of call to busy subscriber are deleted after a period defined by the exchange.

Programming »Completion of call« for analog telephones

Internal or external subscriber is busy or does not answer	*40	Ack. signal	Replace handset

When the subscriber that was called hangs up his/her handset your telephone will ring.
When you lift up your handset the subscriber for which completion of call is active is called. If the party answers you can conduct your call.

Programming »Completion of call on busy« for ISDN telephones

This feature is supported for ISDN telephones by the PABX at the internal ISDN connection. Please refer to the operating instructions for your ISDN telephone for proper use.

Programming »Completion of call on no answer« for ISDN telephones

Internal or external subscriber does not answer	*40	Ack. signal, voice announcement or information on display	Replace handset

When the subscriber that was called hangs up his/her handset your telephone will ring.
When you lift up your handset the subscriber for which completion of call is active is called. If the party answers you can conduct your call.

Canceling automatic completion of call for analog telephones

Analog telephones use this procedure for canceling internal and external completions of call to busy subscriber and no answer.

Lift up handset	#40	Ack. signal	Replace handset

Deleting an automatic »Completion of Call on No Answer« with ISDN phones

Internal completion of calls on no reply is canceled with ISDN telephones using the following procedure.

Lift up handset	#40	Ack. signal	Replace handset

Defining your own number for the next call

Lift up handset	#8	Select external ISDN connection (1...8) (1= S2m)	Index (0 … 9)	Dial call number

Temporarily suppressing transmission of your own number

Attention:
This feature must be applied for at your network service provider.

Transmission of the caller's own number is suppressed using the following procedure with analog terminal devices. Please refer to the operating instructions for ISDN terminal devices on how to initiate this feature.

Lift up handset	*594	Dial this code	Dial call number

Switching call authorization for the next call

Switching call authorization (from the operator set only)

Lift up handset	*595	Dial this code	Dial the number of the subscriber	#	Ack. signal	Replace handset

Switching subscriber's authorization in enquiry call (from the operator set only)

Conversation	R	Start inquiry call	*595	Dial this code	Dial the number of the subscriber	#	Ack.signal	Replace handset

Trunk group reservation

Activating trunk group reservation

You hear the busy signal.	*40	Ack. signal	Replace handset	The selected ISDN connection becomes available	Lift up handset

Deleting trunk group reservation

Lift up handset	#41	Ack. signal	Replace handset

Speed dialing from the telephone directory

Lift up handset	*#	Select speed dialing index (000 … 999)	Subscriber is called	Conversation

Voice announcement

Attention:
A voice announcement extension can be reached by internal devices only.

Lift up handset	Internal number for the voice announcement extension	Voice announcement	Terminate voice announcement

Switching a voice announcement for all numbers (day / night)

Attention:
Day / Night switchable Announcements

Lift up handset	✳92✳ Day	oder	#92✳ Night	Ack. signal	Replace handset

Announcement

Refer to the operating instructions for your telephones whether the phones support the message feature.

Making an announcement

Lift up handset	✳540	Internal number or team number	Ack. signal	Announcement

Enabling / inhibiting announcements

You can enable or inhibit the sending of messages to your telephone. If you have disabled messages being sent to your phone, the caller that is attempting to send a message to you will hear the busy signal.

Lift up handset	✳ / # Enable announcements / Inhibit announcements	591	Ack. signal	Replace handset

Room monitoring

This feature can not be used in conjunction with inquiriy call, call forwarding or team call functions.

Attention:
Room monitoring is deactivated after each pabx configuration and must subsequently be enabled and configured once again.

Enabling room monitoring for an internal telephone

Lift up handset	✳593	Ack. signal	Do not replace handset /Do not deactivate hands-free calling

Room monitoring from an internal telephone

Lift up handset	Dial the number of the telephone to be used for room monitoring	Ack. signal	Room monitoring is activated

Room monitoring from external telephones

You are located at an external telephone.
Lift up the handset of the phone from which you wish to conduct room monitoring and dial the external number to which the service number for the PABX is assigned.

If remote access has been enabled and is possible at this time you will hear the special dial tone of your PABX.
Set your phone to frequency (DTMF) dialing, or use a DTMF manual transmitter.

Enter PIN 2	Ack. signal	Dial the number of the telephone to be used for room monitoring	Ack. signal	Room monitoring is activated

To end room monitoring, hang up the handset of the external telephone.

Malicious call identification (Tracing)

Ongoing call, or caller hangs up	*51	Ack. signal	Replace handset

Attention:
Only hang up the handset after you have entered the code for tracing the caller and hear the positive acknowledgement signal.

Allocating Project Numbers

Assigning a project number for a call you initiate

Lift up handset	*50	Enter project number (max. 6-place)	#	Ack. signal	Dial call number

Project number for incoming external call to ISDN terminal device

You can use this feature at an ISDN terminal if your ISDN terminal device supports the function »Network Direct« (keypad).

You are conducting a call and wish to register it for a project.

Conversation	*50	Entering a project number (max. 6 - place)	#	Ack. signal	Continue call

Project number for an external call

You can use this feature at an analog or an ISDN terminal device if your ISDN terminal does not support the function »Net direct« (Keypad) during an ongoing call.

You are conducting a call and wish to register it for a project.

Conversation	R	*50	Entering a project number (max. 6 - place)	#	Ack. signal	R	Continue call

(keypad-function »Net fixed«)

Lift up handset	0 Dial line access digit	* oder # Initiate keypad function	Enter codes	Replace handset

Sending a fax from a multi-function terminal

Lift up handset	*773 Enter code number for fax group 3	Dial the external number	

Direct dial-in

Making telephone calls with activated direct dial-in

Lift up handset	Begin dialing within the configured time

Entering and activating a direct call number

Lift up handset	*65	MSN extension number (without line access digit)	#	Ack. signal	Replace handset

Attention:
Now, when you lift up your handset the direct call number will be dialed after the specified time (default setting: 5 seconds).

Activate/deactivate direct dial-in

Lift up handset	#65* Deactivating a direct dial-in	or	*65# Reactivating a direct dial-in	Ack. signal	Replace handset

The numbers stored in the PABX for direct calls are retained even when the direct call function is deactivated.

Deleting a direct dial-in number (phone number)

Lift up handset	#65# Delete direct dial-in	Ack. signal	Replace handset

The stored direct dial-in number is deleted.

Inquiry call

You can call another party at any time during an ongoing call.

	You are conducting a call. You would like to call another party.
R	Press the R key. You will hear the internal dial tone.

If you wish to speak to an external party, dial 0 first.

If you hear a busy signal after dialing 0, either your telephone does not have proper authorization for an external call, or the line is busy.

Dial the number of the party you wish to reach.
You will hear the ringing signal in your handset.

The party will be called.
The party being called lifts up the handset of his/her phone.

Conduct your call.

To end the inquiriy call press the Disconnect key on your ISDN phone.

or With analog telephones:

R 0 The connection put on hold is terminated. The active connection remains.

R 1 The active connection is terminated and you return to the call that was previously put on hold.

Continue with your call.

Initiating a system parked inquiry

You are conducting an external call. You want to make this call available for a system parked inquiriy.

R Press the R key. You will hear the internal dial tone.

Dial any one of the 10 configured internal system parked inquiriy numbers or the fixed code *596. You will hear the positive acknowledgement signal.
If you hear the busy tone, dial the next configured internal extension number

Replace the handset, the external call is put on hold in the waiting loop.

Accepting a system parked enquiry

You wish to accept the call from a system parked inquiry.

Dial any one of the 10 configured internal system parked inquiriy numbers or the fixed code *596.

You have accepted the call.

Call waiting

During an ongoing call you can accept, or refuse, a waiting call at any time.

Enable / Inhibit Call Waiting for a Further Call

Lift up handset	* / #	5 8	Ack. signal	Replace handset
	enable / inhibit			

Accepting a waiting call (room inquiry with waiting caller)

You are conducting a call.
A second party calls you.
You hear the call waiting signal.

R 2 Dial this code.

You will be connected with the waiting party. Your first call is put on hold (see »Inquiry call«). For further procedures refer also to »Broker's call« or »Three-party conference call«.

Accepting a waiting call

You are conducting a call. You hear the call waiting signal.

Replace handset (your first call is terminated).

Your phone rings.

Lift up the handset of your phone. You will be connected with the waiting party.

Refusing a waiting call

You are conducting a call.
A second party calls you.
You hear the call waiting signal.

R 0 Dial this code to refuse the waiting call. The caller can be switched to the waiting queue, or the call is established and the caller will hear the busy signal.

Transferring the existing call using analog telephones

If you hear the call waiting signal while engaged in a call , you can accept that call and transfer the existing one.

You are conducting a call. You hear the call waiting signal.

R 5 Dial this code.

Dial the number of the party you wish to transfer the existing call to.

Terminate your input.
You will be connected with the waiting party.

Transferring calls with and without advance notice

Transferring calls internally without advance notice

You can transfer calls when you dial the number of the internal party and then hang up the handset. The internal party is then called and can take the call when he/she lifts the handset.

You are conducting an external call.

R Press the R key.
You will hear the internal dial tone.

Dial the number of the internal party to whom you wish to transfer the call.

You will hear the ringing signal in your handset.
The party will be called.

If you hear the busy signal press the R key again to retrieve the call that is on hold.

Replace the handset. The party will be called. The party being called lifts up the handset and conducts the external call. If the called party does not lift up his/her handset you will be called back at your telephone after a time interval set during programming.

Transferring calls with advance notice

You wish to transfer an internal or external call to another internal party and speak with that party beforehand.

You are conducting an internal or external call. You wish to transfer the call to another party.

R Press the R key. You will hear the internal dial tone.

If you hear the busy signal, press the Recall flash button again to retrieve the call.

Dial the number of the party you wish to call.
You will hear the ringing signal in your handset.
The party will be called.
The party being called lifts up the handset of his/her phone.

Conduct this internal call.
Tell your internal partner that you wish to transfer the call currently on hold to him/her.

Replace the handset.

The other internal party can then continue with the call.

(Explicit call transfer)

Connecting

Please note that ISDN terminal devices can only utilize the feature »Connect« via a special key or menu function. The following procedure applies only to analog telephones.

You are conducting a call with party 1.
A further call is signaled, for example by call waiting.

R 2 Dial this code.
Party 2 answers; you can speak with Party 2 Party 1 is put on hold.

R 4 You would like to connect the two parties with one another.
Dial this code.

The two parties are then connected. The charges for the connection are billed to the party who established the connection.

Broker's call

You are conducting a call and wish to speak to a further party, without the first caller being able to hear your conversation with the second caller.

R Press the R key.
You will hear the internal dial tone.

If you wish to speak to an external party, dial 0 first.

Dial the number of the party you wish to call.
You will hear the ringing signal in your handset.
The party will be called.
The party being called lifts up the handset of his/her phone.

You are conducting the call.
The first call is put on hold.

R 2 Dial this code to return to your first caller; the second party is put on hold. You can then use this code to switch back and forth between the two callers.

or

R 0 You can end the call that is on hold.
Dial this code.

or

R 1 You can end the current call.
Dial this code.

If you switch back and forth between an internal caller and an external party (broker's call) and then hang up your handset, your call is terminated and the two callers will be connected with one another!

If you switch back and forth between two external parties (broker's call) and then hang up your handset, the current call is terminated and the caller on hold will call you by way of the »Recall«.

If, during a broker's call, you press the R key and then dial 4, the two external parties are connected with one another and your call with both of the external parties is terminated. The charges for the call that you initiated will be billed to you.

Three-party conference

You are conducting a call with one party and wish to include a further party in the call.

R Press the R key.
You will hear the internal dial tone.

If you wish to speak to an external party, dial 0 first.

	Dial the number of the party you wish to reach. You will hear the ringing signal in your handset. The party will be called. The party being called lifts up the handset of his/her phone.
	You would like to include this party in the first call.
R 3	Dial this code.
	Conduct your three-party conference call.
	You would now like to exclude the party that you first brought into the conference call from further conversation. This caller then remains on hold in an enquiry call.
R 2	Dial this code.
	You can then continue your call with the second party. The first party is on hold.

The conference is ended when you hang up your handset. A party included in the conference call can hang up at any time and the party which initiated the call can then continue the conference with the remaining callers.

Call forwarding

Attention:
The PABX recognizes automatically by the length of the number whether call forwarding is to be made to an internal or external subscriber. This is why the destination number for call forwarding to an external subscriber is always input without the line access digit (LAD).

Activating call forwarding

Lift up handset	*	6 1 / 6 2 / 6 3		#		
		Permanent call forwarding / Call forwarding on no reply / Call forwarding on busy	Destination number for call forwarding (without line access digit)		Ack. signal	Replace handset

Deactivating call forwarding

Lift up handset	#	6 1 / 6 2 / 6 3		
		Permanent call forwarding / Call forwarding on no reply / Call forwarding on busy	Ack. signal	Replace handset

Silent signalling

Deactivating call signaling for analog terminal devices

Lift up handset	* 5 7	0 / 1 / 2		
		internal + external calls / only external calls / only internal calls	Ack. signal	Replace handset

Activating call signaling for analog terminal devices

Lift up handset	# 5 7 0		
		Ack. signal	Replace handset

Call modes (Day- / Night)

Activating team call assignment for one team

Lift up handset	✳ / #	9 3	Enter team number (00...39)	Ack. signal	Replace handset

Switching team call assignment for all teams

Lift up handset	✳ / #	9 3 ✳	Ack. signal	Replace handset

door terminal (door intercom device) - Switching call modes for a doorbell button

Lift up handset	✳ / #	9 6	Select door entry phone (1...4)	Select bell button (1...3 (4))	Ack. signal	Replace handset

door terminal (door intercom device) - Switching call modes for all door terminal modules

Lift up handset	✳ / #	9 6 ✳	Ack. signal	Replace handset

Switching all call modes (all teams and door terminal modules).

Lift up handset	✳ / #	9 ✳	Ack. signal	Replace handset

Switching all call modes

Lift up handset	✳ / #	9 #	Ack. signal	Replace handset

Teams

Enabling / Inhibiting a subscriber of a team (log-in, log-off)

Proceed as follows in order to enable or inhibit your phone for a team

Lift up handset	✳ / #	9 4 3	Team number (00 ... 39)	Ack. signal	Replace handset

Enabling / inhibiting a subscriber for all teams (log-in, log-off)

Proceed as follows in order to enable or inhibit your phone for all teams.

Lift up handset	✳ / #	9 4 3 ✳	Ack. signal	Replace handset

Activating the switching function for an internal subscriber

Lift up handset	✳ / #	9 1		Replace handset
	Activate day mode / night mode	Code	Ack. signal	

Follow me

Setting up or deleting an internal Follow me

Lift up handset	✳/#	6 4		#		Replace handset
	Set up / delete	Follow me	*1)		Ack. signal	

*1) Internal number whose calls are to be forwarded
Call will then be forwarded to the specified telephone.

Setting up /deleting call forwarding from an external location

Lift up the handset of your phone and dial the external number to which the service number of the PABX system has been assigned.

If remote activation of call forwarding has been enabled you will hear the special dial tone for your PABX system. Set your phone to DTMF dialing:

PIN 2	Ack. signal	✳	6 4	*1)	✳	*2)	#	Ack. signal

PIN 2	Ack. signal	#	6 4	*1)	#	Ack. signal
		Delete			Delete	

*1) Internal number whose calls are to be forwarded

*2) Destination number for call forwarding (outside number without LAD)

You will then hear the positive acknowledgement signal for about 1 second; the connection is then terminated and you will hear the busy signal.
Replace the handset.

Mobile Integration internal (log-in, log-off)

Lift up handset	✳ / #	9 4 4	
	Enable/Inhibit		Ack. signal

Mobile Integration External (log-in, log-off)

Lift up the handset of your phone and dial the external number to which the service number of the PABX system has been assigned. Set your phone to DTMF dialing:

PIN 2		✳ / #	9 4 4	
	Pos.Quittung	Enable/Inhibit		Ack. signal

Block dialing (Austria)

*1) If you'd rather use a specific external ISDN connection or bundle,s enter the corresponding code.

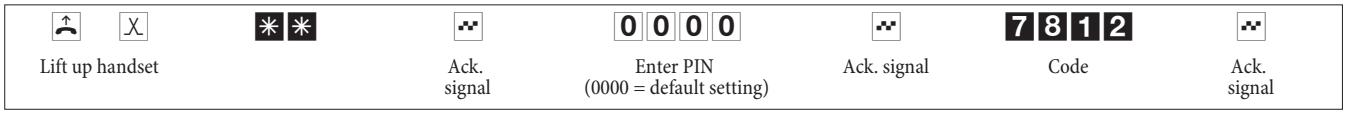
*2) Begin dialing by pressing the key #. Only now is the call transferred to the exchange.

Least Cost Routing (LCR)

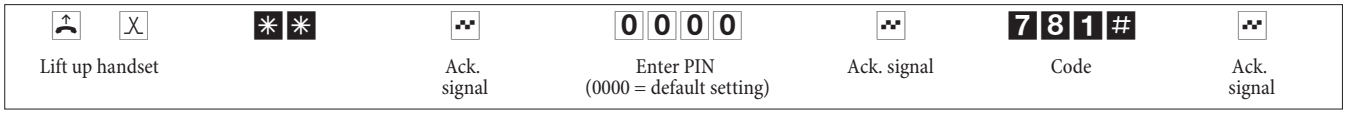
Please note that there are some providers whose services must be applied for. Some of these providers automatically set up a connection to enroll unregistered customers. If you terminate such a connection during dialing and then subsequently attempt to set up this link again, this may result in errors during calling (communication will not be established). In this case it will be necessary to deactivate the provider concerned in the LCR professional on the WIN-Tools CD and to update the date records in the PABX.

You can activate/de-activate the LCR procedure using either the »Professional Configurator«, or a code sequence on the telephone.

Activating the LCR procedure



Deactivating the LCR procedure



Hotel functions

This PABX system comes equipped with extensive hotel functions. This function is used from the reception desk phone via the PABX system menu.

Registering the hotel room status

Dialing a numeric code from the room telephone makes it possible to register the current status of the room. This data collection can be analyzed and displayed only in connection with hotel application software.

Lift up handset	*73	0 / 1 / 2 Enter status: 0 = Room not clean 1 = Room clean 2 = Room clean and inspected	Ack. signal	Replace handset

Wake-up call

Configuring wake-up calls from the room phone (one-time morning call)

Lift up handset	*72	06 Hours	3 Minute	Ack. signal	Replace handset

06	Enter the hour desired for the morning call between 00 and 23 (in this example 6 am)
3	Enter the minute for the morning call between 00 and 59 (in this example 6.30 am)

Canceling a wake-up call

Lift up handset	#72	Ack. signal	Replace handset

Configuring a wake-up call from the »Reception desk phone«

In addition to configuring wake-up calls using the room phone, wake-up calls can also be defined for several days in advance from the »Reception desk phone«.

Answering a morning call

The telephone in your room rings	Lift up handset	Music on Hold or voice announcement	Now hang up the handset and the wake-up call is ended

Reset system telephones

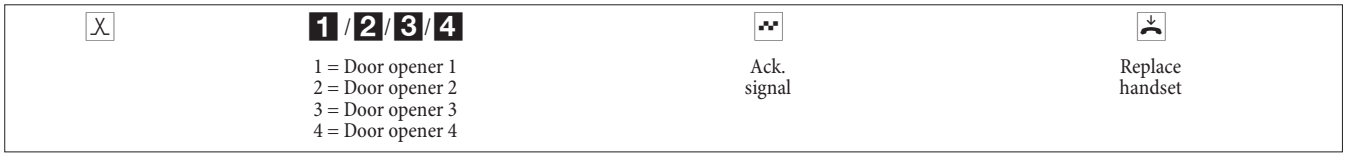
Lift up handset	**	PIN	900	Internal number

MWI Activate/ deactivate

Lift up handset	*/#	Room telephon	#	
	Activate/ deactivate			

Door intercom device

Making a door interphone call / Opening the door



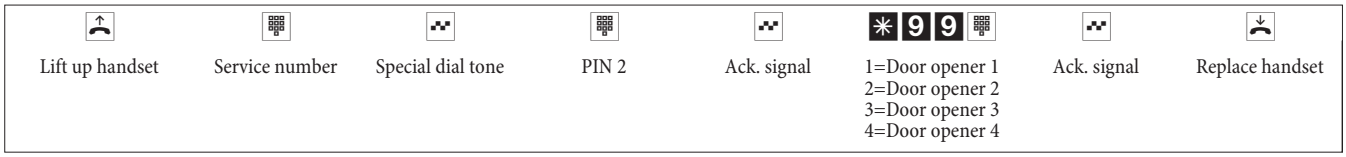
Activating the door opener

Attention:
Please note: If a door entry phone call is signaled at a different telephone or if you hear the door bell ring, you can dial the door intercom phone number and pick up the door entry phone call yourself, provided you have the corresponding rights to do so.

Opening the door with ISDN telephones that do not support suffix dialing:

If you wish to open the door, terminate the door entry phone call and replace
Lift up the handset again and dial to open the door *991.... *994 .

Actuating the door terminal externally



Signaling features

Activating/ de-activating signalisation call function

Alarm call list

The terminal device must have been entered into the list during configuration:
01...36 Alarm call list 01...36.

Function:

0 Deactivating the alarm call feature.

1 Activating the internal alarm call feature.

2 Activate external call feature.

Confirm alarm call

An alarm call can be confirmed locally at a telephone assigned to the alarm input. To confirm an external alarm call, you will need a dtmf-capable phone.

The alarm call is indicated	Lift up handset	*537	Ack. signal	Replace handset

Switching contacts

Attention:
In the event of a loss of power and after a reset the switching contacts are idle.

Activating/ de-activating switching contacts

Lift up handset	* / #	970	Switching contact 01...12	Ack. signal	Replace handset

Switching contact with button function

Lift up handset	*971	Switching contact 1...3	Ack. signal	Replace handset

The switching contact closes for the time interval you have programmed (1... 999 seconds).

Switching contact with a switch function (remote)

Lift up handset	Service number	Special dial tone	PIN 2	Ack. signal	...

	* / #	970			
	Activate/ deactivate		Switching contact 1...3	Ack. signal	Replace handset

Switching contact with a button function (remote)

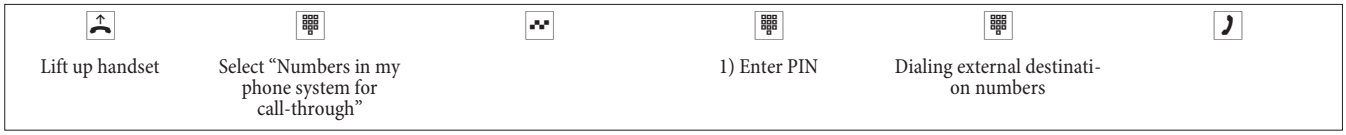
Lift up handset	Service number	Special dial tone	PIN 2	Ack. signal	...

	*971			
		Switching contact 1...3	Ack. signal	Replace handset

The switching contact closes for the time interval you have programmed (1 ... 999 seconds).

Call Through

This action may only be performed from an external phone.



1) The configuration of the PABX system is decisive for this input (with or without PIN, with number recognition, or both).

Dial authorization with PIN

Modified code numbers

You can program your PABX with individual code numbers for the following features. Customizing the default PABX numeric code adds an extension from the internal telephone number plan of the system.

Enter all changed code numbers in the table. Several different code numbers can be used for the features trunk group assignment, system parked inquiriy and activation of a door opener.

Feature	Default code number	Changed code number
Line access digit	0 (UK 9)	
Picking up calls from within the group	* 0	
Picking up calls for a specific subscriber	* 1 [ ] #	
Speed dialing from the telephone directory	* #	
Assignment of project numbers for external calls	* 5 0	
Trunk group seizure (8 codes)	* 8	
System parked inquiry (10 codes)	* 5 9 6	
Activation of a door opener (4 codes)	* 9 9	

The operation principle of the features whose code number has been changed remains as described. You can either use the changed code number (internal extension number) or the code number given in the operating instructions (except for the line access digit).

Communication / Call charges

The PABX generates a call data record for every external call. The call data records contain detailed information about the call.
For ex.: Date and time, duration of the call, number of the called party, number of the calling party, type of connection, communication costs and possible project numbers.

Incoming calls can be logged in two different ways.

- Only incoming calls with a certain project numer are stored.
- All incoming calls are stored.

Output of call data records

You have two options to output the stored call data records. For example:

- output via the RS232 interface on a printer
- output via the RS232 interface or the USB port on a PC or laptop computer
- Internal ISDN connection
- LAN-port

Communication cost display

The communication / call charges can be displayed at any terminal devices that support this feature. ISDN and analog terminal devices use different methods for transmitting and displaying communication costs.

Charge counter

The PABX manages a charge counter for each internal user on the basis of the transmitted charge rate intormation. The counter logs the costs of all calls. If your network service provider has made this rate information available on your ISDN connection then the PABX terminal devices can display this information. You can also reset the counters.

Charge limitation (Charge limit, pocket money account)

A call charge account can be programmed for each internal user. The charge rate amounts available to that particular user are defined in this account. If the user uses up his/her allotted units he/she can then only make internal calls. If this limit is reached during an ongoing call, the call can be completed. The user can make external calls again when the number of units on his/her account is increased or the counter is deleted.

Terminating an Internet connection from the phone

Using a corresponding operating procedure you can terminate an ongoing Internet connection from any phone.

Lift up handset	#66# Disconnect Internet connection	Ack. signal	Replace handset

System menu for the PABX

A special menu containing functions typical for the system is provided by the PABX. This menu, and the associated features, are managed solely from the PABX.
The following features are available in the system menu (Example):

Telephone directory for the PABX, Follow me, direct dial-in, Day / Night (call modes) schalten, cost registration, hotel functions

Attention:
You can select the language of your display, provided the desired language has been configured using the telephone directory programmeme.

Refer to the operating instructions of the system telephone being used to find out how to reach the PABX system menu.

System telephones

Various elmeg system telephones can be connected to the internal ISDN ports of your PABX, which automatically detects these phones and The PABX provides the system phones with the system menu and further specific features. System phones and (optional) supplementary keyboards can be programmed with function keys. The system telephone operating instructions include a description of these functions and their configuration and use.

Attention:
When you enter the number for dialing via an SIP provider, dialing is not performed until around 5 seconds after the last digit has been entered. Dialing is performed immediately when you press the # key after entering the number. In this case, the terminal device must also be capable of dialing into the phone system with the #. .

Intercom

Intercom calls can be placed to system telephones and to elmeg ISDN telephones.

If an intercom call is not terminated by one of the two users, the connection is terminated automatically after a time defined in the PABX (around 2 minutes).

Enable / inhibit intercom call reception

Lift up handset	* / #	590		Replace handset
	Enable intercom calling / Inhibit intercom calling		Ack. signal	

Service

Configuration of system features using a telephone

Various settings are protected by PIN1 in the PABX. In the default state, this PIN 1 is set to 0000. Write down your PIN 1 and keep it in a safe place, because if you forget or lose your PIN 1 you will no longer have access for configuring the PABX over a telephone. If you do forget your PIN 1, call the service center of your dealer.

»Remote access / remote control« is protected by PIN 2.
Remote access using this 6-digit PIN2 is only possible when this PIN2 has been changed individually, i. e. it is no longer in its initial setting of 000000.

Attention:
A tear-out page at the end of the instruction manual contains all codes for configuring system features via a phone line. Remove this page if you want the codes used exclusively by the system administrator or the PABX service.

After you begin configuration you can set the features for your system using the codes described here. The telephone being used for programmeming can not be reached while the system is being configured.
You will hear the positive acknowledgement signal once you successfully conclude configuration for a setting. You can then move on to configure the next setting. If you wait for more than 40 seconds between one entry and another, the PABX will terminate configuration and you will hear the busy signal. All input made up to that point which was concluded with a positive acknowledgement signal will be saved when you hang up the handset. Saving is performed for 10 seconds after you hang up the handset. During this period it is important that you do not begin a new configuration of the system, and that power is not interrupted to the system.

Service access

This feature enables you to have the PABX configured by your dealer's service center or download the current software of the PABX. You can trigger this function from an internal phone of your PABX or release your PABX for access by an external PC (for example your specialized dealer).

Outgoing service call (solution with 2 B-channels)

	You call up the service center. You are connected with the service technician who then explains the further procedure to you.
R	When requested by the technician you push the Recall flash button You will hear the internal dial tone.
*792	Dial this code.
	If you wish to establish a service connection with the services maintenance and diagnosis, enter the code number *794
	Dial the number of the service center.
#	Finish input.
	You will hear the positive acknowledgement signal.
	You are then re-connected with the service technician and can continue your call.

Outgoing service call (access via 1 B channel)

Lift up handset	*792	Number for the service centre	#	Connection with service centre	Replace handset

You will hear the internal music on hold once a connection to the service center has been established.
When the data have been transferred the service center will terminate the connection. You hear the busy signal.

Ending an active, incoming service link

You can terminate a connection set up by the service center using the following procedure.

Lift up handset	#792	Ack. signal	Replace handset

Enabling for remote service access

You can release your PABX system for remote access by an external subscriber. Release for remote access of the PABX is effected for 30 minutes.

Lift up handset	*782	Ack. signal	Replace handset

Enabling for remote service access)

You can release your PABX system for remote access by an external subscriber. Release for remote access of the PABX is effected for 30 minutes.

Lift up handset	#782	Ack. signal	Replace handset

Deleting authorization for remote service access

You can cancel a programmed release for incoming remote access any time you want. However, an existing connection to a service center is not terminated.

Lift up handset	#799	Ack. signal	Replace handset

RAS dial-in for gateway diagnostics

Enabling for 30 minutes

You can enable your PABX system for dial-in from an external subscriber for up to 30 minutes.

Lift up handset	*52#	Ack. signal	Replace handset

Enabling for 30 minutes with specified number

You can enable your PABX system for dial-in from a specified external subscriber for up to 30 minutes when the caller's number concurs with the specified number.

Lift up handset	*52	Dial external number	#	Ack. signal	Replace handset

Cancellation of enabling

You can cancel a service connection for dial-in by an external subscriber. This will not terminate an ongoing service connection.

Lift up handset	#52	Ack. signal	Replace handset

Index

A

Accepting
of calls 5
Accepting a waiting call 11
Activating the LCR procedure 17
Alarm call 19
Alarm call list 19
Allocating project numbers 9
Announcement 8
Answering machine 5
Appointment call 18
Automatic completion of call
canceling 6
at no answer 6
configuring 6
on busy 6

B

Block dialing 17
Broker's call 13
Button function 20

C

Call
accepting 5
Call modes 15
Call modes for teams 15
Call rerouting 14
Call switching in the network (ECT) 13
Call waiting 11
Charge counter 22
Charge limit 22
Charge limitation 22
code numbers, modified 21
Communication cost display 22
Communication costs 22
Communication data 22
Completion of call (automatic)
canceling 6
activating 6
at no answer 6
delete 6
on busy 6
Conference 13
Configuration 24
Configuring wake-up call from »Reception desk phone« 18
Configuring wake-up calls from the room phone 18

D

Description 30,31,32
Dial authorization with PIN 21,22
Direct exchange line access 4
Door intercom device 19,20
Door opener 19

E

ECT (explicit call switching) 13
Enable / inhibit call waiting for a further call . 11
External Follow me, set up / delete 16

F

Flash 4
Follow me 16

I

Inhibiting calls 14
Inquiry call 10
Intercom 23

K

Keypad (Net fixed) 10

L

Language 23

Loss of power 3

M

Making calls
outside 4

Making Calls
Internal 5

Making outside calls 4

Making outside calls with direct exchange line access 4

Making telephone calls. 4

Malicious call identification (Tracing) 9

Mobile Integration 16

Modified code numbers 21

Multifunctional device 10

MWI Activate/ deactivate 18

N

Net fixed (keypad) 10

O

Output of call data records 22

Own number
defining for the next call 6

P

Pick up. 5

Picking up calls for a specific subscriber 5

Pick-up
calls from answering machine. 5

Pocket money account 22

R

Reception desk phone 18

Registering the hotel room status 18

Reserve trunk group 7

Reserving an external ISDN port 7

Reset system telephones 18

Room inquiry with waiting caller 11

Room monitoring 8

Room telephone. 18

S

Service 24,25

Service access 24

Service-Connection, incoming. 25

Service-Connection, outgoing 24

Setting up call forwarding from an external location. 16

Signaling features 19

Silent signalling 14,22

Speaking alternatively with two parties. 13

Speaking simultaneously with two parties . . . 13

Specific trunk bundle selection 5

Speed dialing from the telephone directory . . . 7

Switching all call modes 15

Switching call authorization temporarily 7

Symbols 3

system menu. 22

System parked inquiry 11

System telephones 23

T

Teams 15

Telephone directory 7

Temporarily suppressing transmission of your own number 7

Terminating an Internet connection from the phone. 22

Three-party conference. 13

Tracing (Malicious call identification) 9

Transfer a call 12

Transferring a call. 12

Transferring the existing call using analog telephones 12

Trunk group seizure 5

U

Using system telephones 23

V

Voice announcement. 7

W

Waiting call

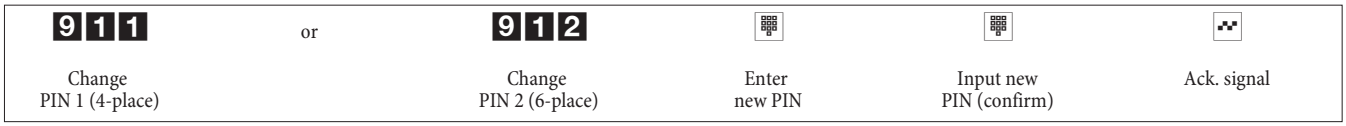
accepting 11

Wake-up call. 18

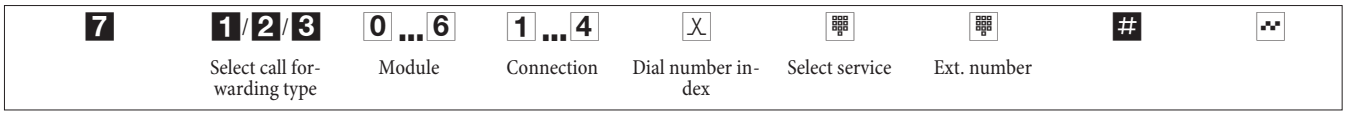
Configuration using a telephone (administrators)

The following procedure must be performed one time at the beginning of configuration.

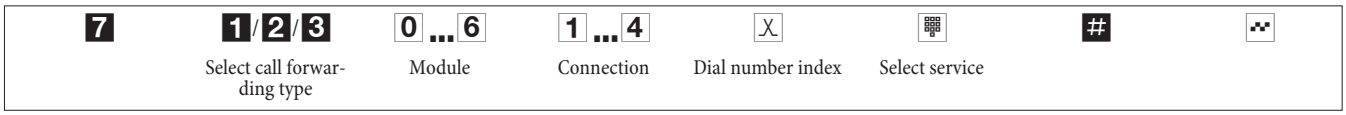
Change PIN 1 or PIN 2



Configuring call forwarding (1 - immediate, 2 - on busy, 3 - delayed)



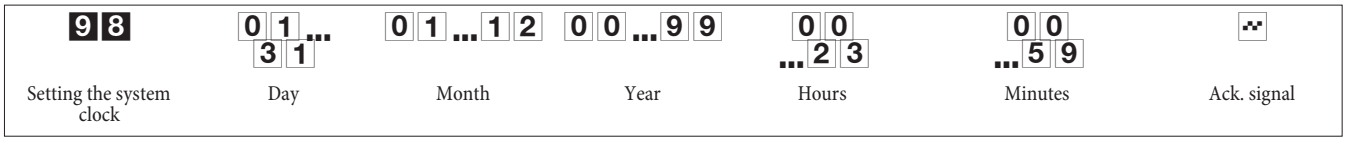
Deleting call forwarding (1 - immediate, 2 - on busy, 3 - delayed)



Activating Least Cost Routing (LCR)

Enabling / inhibiting remote access

Setting the date and the time



Resetting communication data output

Deleting the charge counter for one internal extensions or for all

Setting up call accounts

8 3 0			#	
Code number	Int. extension number	amount (max. 6-place, with a factor of 100)		Ack. signal

Deleting call accounts

8 3 0		#	
Code number	Int. extension number		Ack. signal

Activating / deactivating an extension's call account

8 9 0		* / #	
Code number	Int. extension number	Activate / Deactivate	Ack. signal

Activating / de-activating communication data output via the serial interface

8 0	* / #	
Code number	Activate / Deactivate	Ack. signal

Resetting settings to default state (Reset)

9 9 9	
Code number	

Resetting one internal extension or all

9 0 0	or *	
Code number	internal number or * for all internal extensions	Ack. signal

Release time of 5 minutes for logging on a DECT handset

7 8 2 *	
Code number	Ack. signal

funkwerk
enterprise communications

Funkwerk Enterprise Communications GmbH
Südwestpark 94
D-90449 Nürnberg

For information on support and service offerings please visit our Website at www.Funkwerk-ec.com where, you will find a Service / Support area

Subject to modifications
Ausgabe 4 / 010109